IFW

Docket No.: 27702/10054B
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Craig A. Bonda et al.

Application No.: 10/785,271 Confirmation No.: 3869

Filed: February 24, 2004 Art Unit: 1616

For: PHOTOSTABILIZATION OF A SUNSCREEN COMPOSITION WITH A COMBINATION OF AN α-CYANO-β,β-DIPHENYLACRYLATE COMPOUND AND A DIALKYL NAPHTHALATE

Examiner: M. Lamm

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the first Office Action dated June 29, 2004.

The courteous interview granted by Examiner Lamm to applicant and applicant's undersigned attorney on 26 August 2004 is hereby acknowledged with appreciation.

Claim 1 requires a minimum ratio of an α-cyano-β,β-diphenylacrylate compound to the diester or polyester of naphthalene dicarboxylic acid, *e.g.*, octocrylene (OC) to TQ, of at least 0.95, and preferably at least 1.0 (claim 2).

As discussed at the interview of 26 August 2004, applicants' claimed composition exhibits new and unexpected results in comparison to the compositions disclosed in the Gers-Barlag publication.

REJECTIONS BASED ON GERS-BARLAG '966

The Gers-Barlag et al. publication U.S. 2001/0022966 A1 ('966) discloses wide ranges for both the octocrylene (OC) and naphthalene diester or polyester (TQ) composition components. Gers-Barlag '966 discloses 4-16% by weight TQ (see paragraph [0036]), with the amount of octocrylene being advantageously less than 1% by weight (paragraph [0038]) or greater than 1% by weight (paragraph [0039]). The examples disclose the combinations of OC to TQ in a weight ratio of OC/TQ in the range of 0.16 (Ex. 6) to 0.72 (Ex. 8). There is always more TQ than octocrylene in the '966 Gers-Barlag '966 reference, and the minimum quantity of TQ is 4.0% by weight. Nowhere in the '966 publication is there any motivation to combine OC and TQ in the ratios claimed herein.

The enclosed Declaration of Craig A. Bonda, inventor, compares the minimum claimed ratio of OC/TQ of 0.95 to the maximum disclosed ratio of OC/TQ of 0.72 disclosed in the examples of the '966 publication - each containing the same total quantity of OC + TQ = 5.0%, and otherwise being identical.

As shown in the enclosed Declaration (Tables 1 and 2), the highest '966 OC/TQ ratio of 0.72 lost 13.75% of its UVA absorbance, 7.05% of its UVB absorbance, and 9.01% of its SPF value after being exposed to 35 MEP of 290-400 nm radiation. The claimed formulation, having an OC/TQ ratio of 0.95, lost none of its UVA or UVB absorbance, and lost none of its SPF value after exposure to the same radiation level.

Similarly, as shown in Tables 3 and 4 of the enclosed Declaration, comparing applicants claimed (claim 2) OC/TQ ratio of 1.0 to the Gers-Barlag '966 ratio of 0.7, the prior art compositions lost 12.81% of its UVA absorbance, 8.14% of its UVB absorbance, and 11.48% of its SPF value. Applicant's claimed formulation lost only 7.49% of its UVA absorbance, only 2.07% of its UVB absorbance, and only 3.42% of its SPF value.

In view of the unexpected results shown in the enclosed Declaration of Craig A. Bonda, it is submitted that the rejection of claims 1-19 and 21-32 under 35 U.S.C. §102(e) based on the Gers-Barlag '966 publication (paragraph 7 of the Office Action) and the rejection of claim 20 under 35 U.S.C. §103 (paragraph 9 of the Office Action) should be withdrawn.

As explained at the interview of 26 August 2004, it is difficult to achieve a PA+++ rating, by achieving an in-vivo PFA of at least 8 (see **Exhibit A**, attached to this response). At a OC:TQ ratio of 1.0, applicants' claimed composition achieves of PFA of **[8.3]** in in-vivo testing, thereby achieving a PA+++ rating (as explained in **Exhibit A**).

The prior art neither teaches nor suggests the OC/TQ ratios claimed herein, and neither teaches nor suggests the claimed combination of composition components, particularly the combination of α-cyano-β,β-diphenyl acrylate and diester or polyester of naphthalene dicarboxylic acid in a ratio of at least 0.95 to unexpectedly increase the photostability of a dibenzoylmethane derivative (as shown by the enclosed Declaration of Craig A. Bonda). In view of the unexpected results shown in the enclosed Declaration of Craig A. Bonda, it is submitted that the prior art rejections based on the Gers-Barlag '966 publication should be withdrawn.

RESPONSE TO BONDA PRIOR ART - REJECTION

BONDA ET AL. 5,993,789 REJECTION

Claims 1-19 and 21-32 stand rejected under 35 U.S.C. §102(b) as anticipated by Bonda 5,993,789 ('789). The '789 patent neither discloses nor suggests a combination of OC and TQ in the claimed weight ratio of at least 0.95. In fact, the photostabilizing effect of TQ was compared to that of octocrylene, in Example 2, by using "4% of **either** octocrylene or a polyester of 2,6-naphthalene dicarboxylic acid" (col. 7, lines 60,61). Only claim 10 recites OC and TQ together, with the percentage of octocrylene recited as 0-10% by weight. Thus, the rejection based on the Bonda '789 patent must be an obviousness rejection under 35 U.S.C. §103. The Gers-Barlag '966 publication does call for OC and TQ used together, but never in the ratios claimed herein by applicant. When looking for amounts of OC and TQ to combine, one would look to the '966 publication and use a weight ratio of 0.16 to 0.72, as explained above in responding to the rejection based on the Gers-Barlag '966 publication.

It is submitted that it would not have been obvious based on the Bonda '789 patent and Gers-Barlag '966 publication to provide a combination of OC and TQ in the ratio of at least 0.95, based on the enclosed Declaration of Craig A. Bonda, and the unexpected results shown therein, and argued above with reference to the rejection based on Gers-Barlag '966. Accordingly, it is submitted that the rejection based on the Bonda '789 patent should be withdrawn.

DOUBLE-PATENTING REJECTIONS

Enclosed is a Terminal Disclaimer over co-pending application Serial No. 10/361,223 to obviate the rejection set forth in paragraph 2 of the first Office Action. Application Serial No. 10/41,388 has been expressly abandoned (paragraph 3 of the first Office Action).

Claims 1-17 and 21-32 stand further rejected as obvious in view of claims 17 and 19 of the Bonda patent No. 5,993,789.

It is submitted, for the reasons set forth above with respect to the prior art rejections, that it would not have been obvious to one skilled in the art to provide the ratio of (a) an α-cyano-β,β-diphenylacrylate to (b) the diester or polyester of naphthalene dicarboxylic acid of at least 0.95, as claimed herein.

The specification of the Bonda '789 patent has no example of (a) and (b) used together. Further, claim 17 recites 0-10% octocrylene. There is no suggestion in the claims to provide both OC and TQ in the claimed ratio. It is submitted that in view of the unexpected results shown in the enclosed Declaration of Craig A. Bonda, the obviousness-type double patenting rejection based on the Bonda '789 patent should be withdrawn.

It is submitted that all claims are now of proper form and scope for allowance. Early and favorable consideration is respectfully requested.

Dated: September 22, 2004

Respectfully submitted,

By Richard H. Anderson

Richard H. Anderson
Registration No.: 26,526
MARSHALL, GERSTEIN & BORUN LLP
233 S. Wacker Drive, Suite 6300
Sears Tower
Chicago, Illinois 60606-6357
(312) 474-6300
Attorney for Applicant